Calculating Markup: A Merchandising Tool

Part 2: 2-3 Average Markup

Every retailer must establish the desired markup goal for each product category or department within the store, and for the store itself, in order to meet the markup percent goal established by store management. (Remember, markup must cover expenses, reductions and profit in order for the store to be profitable.) Specifically, markup on merchandise that is already in the inventory or on order must be combined with markup on purchases that are to be made throughout the selling season. Some markups are below the set markup goal, while others are above the established markup goal.

When retail merchandisers and buyers go to market, they may buy the majority of a particular product classification such as jeans on the initial buying trip, or they may not find what they need on that market trip. However, an astute merchandiser will not spend the entire budget for a particular item at the beginning of the season or on just one market trip. Also, new product offers are usually made available throughout the selling season and off-price, closeouts or special promotions are made available frequently by most vendors. Therefore, the merchandiser must save a reserve budget in order to take advantage of opportunities which sometimes are the key to meeting the planned markup percent for the product classification, department or store.

For example, products, such as sweaters, may be purchased from several different vendors. Each vendor offers its seasonal line of sweaters at different wholesale costs. (Also, it is common for these vendors to have different styles or versions of the product classification at different costs.) Therefore, in many instances, the markups on these sweaters are not usually the same. Also, private label merchandise may have a higher markup than a designer or national brand. Promotional goods may have lower markups than initially purchased goods of the same product classification, and exclusive goods may have higher markups than basic and staple merchandise.

As previously discussed in *Part 2: 2-2 of* **Section 1**, markups on varying items with different wholesale costs and retail prices cannot be averaged by averaging the markup on the individual items, unless the exact same quantity of each of the items exists. As illustrated previously, an average markup must be calculated by determining total cost and total retail.

During a regular work day, retail merchandisers or buyers address many scenarios in which they must work with averaging markup. Besides calculating the markup percent on an order copy, there are three other types of calculations that are used most often by the retailer. They include:

- Calculating markup percent needed on balance of purchases to meet planned markup percent.
- Calculating average costs when retail and markup percent are given.
- Calculating average retail when cost and needed markup percent are established.

Calculating markup percent needed on balance of purchases to meet planned markup percent.
After the initial purchase of merchandise, retail buyers purchase merchandise throughout the selling season in order to meet customer demand, plus sales and markup goals for the department. The markup percent for the department is usually established by management based on the goals for the entire store. After determining the markup percent on the initial purchases, the buyer must determine

what markup percent is needed on the remainder or balance of the purchases in order to meet the planned markup goal for the department for that particular season.

Example:
A buyer for the Contemporary Department needs to purchase **$12,000 at retail** of cotton or cotton blend knit tops for the spring selling season. She has already purchased 8 dozen basic cotton tees (12 × 8 = 96) and four dozen cotton tank tops (12 × 4 = 48). The basic tees cost $20.00 each and will retail for $42.00 each. The tank tops were bought at a wholesale cost of $10.00 will retail for $18.00 each. The buyer needs **a 52% markup** to meet her department goals.

*What is the **markup percent** on the balance of knit tops to be bought during of the season?* (Hint: Always determine what information is needed and what information you already have in order to solve the problem.)
(total needs (minus) – purchases (equals) = balance to purchase)

Set up a chart of the information you have in order to determine how to solve the problems.

Component	Total Needs (minus) -	Purchases (equals) =	Balance to Purchase
Retail	$12,000.00	a) 96 tees × $42.00 = $4,032.00 b) 48 tanks × $18.00 = $864.00 or Total $ = $4896.00	$7104.00
Cost	$5,760.00	a) 96 tees × $20.00 = $1920.00 b) 48 tanks × $10.00 = $480 or Total $ = $2400.00	$3360.00
Markup Percent	52%		$3744.00 ÷ $7104.00 = 52.70%

1. Calculate the total **cost** needed to purchase the cotton knit tops. (Hint: To calculate Cost %, remember to use the formula, **Cost % = Retail % - Markup %**)

> **Cost $ = Retail $ × Cost %**
> Cost $ = $12,000.00 × 48% or (100% - 52%)
> Cost $ = **$5760.00**

2. Calculate the **retail value** of the purchases. (Hint: Calculate total retail $: total $ tees + total $ tanks = total retail $.)

> **Total Retail tees = Retail per Unit × # of Units**
> Total Retail tees = $42.00 × 96
> Total Retail tees = **$4032.00**
>
> Total Retail tanks = $18.00 × 48
> Total Retail tanks = **$864.00**

Total Retail $ = Retail $ Tees + Retail $ Tanks
= $4032.00 + $864.00
= **$4896.00**

3. Calculate the **cost value** of the purchases to date.
Total Cost tees = Cost per Unit × # of Units
Total Cost tees = $20.00 × 96 tees
Total Cost tees = **$1920.00**

Total Cost tanks = $10.00 × 48 tees
Total Cost tees = **$480.00**

Total Cost $ = Cost $ Tees + Cost $ Tanks
= $1920.00 + $420.00
= **$2400.00**

4. Calculate balance at retail.
Retail $ Balance = Total Retail $ - Retail $ Purchases
= $12000.00 - $4896.00
= **$7104.00**

5. Calculate balance at cost.
Cost $ Balance = Total Cost $ - Cost $ Purchases to date
= $5760.00 - $2400.00
= **$3360.00**

6. Calculate Markup % needed on balance of merchandise.
Markup $ Balance = Retail $ Balance - Cost $ Balance
= $7104.00 - $3360.00
= **$3744.00**

Markup % Balance = Markup $ Balance ÷ Retail $ Balance
= $3744.00 ÷ $7104.00
= **52.70%**

<u>Calculating average costs when retail and markup percent are given.</u>
As previously discussed, merchandise classifications such as sweaters may be purchased from several different vendors. Each vendor offers its seasonal line of sweaters at different wholesale costs. (Also, it is common for these vendors to have different styles or versions of the product classification at different costs.) These products may or may not be marked up to the same retail price. Or for special sales or events, product classifications such as jeans are bought from several vendors at different costs. However, these jeans are made available to the consumer at the same retail price for the sales event. After the purchase is made from the first vendor, the retail buyer must determine what wholesale cost can be paid for the remainder of the jeans in order to achieve the desired markup percent.

Example:

A Junior Department buyer plans to purchase **400 pairs of denim (100% cotton) jeans** for a Back-to-School sale to retail at **$59.99**. She has already purchased 250 pairs of jeans at a wholesale cost of $32.00. What is the highest cost the buyer can pay for the remainder of the jeans if she is trying to achieve a **52%** markup?

*What is the unit **cost** on the balance of the jeans?* (Hint: Always determine what information is needed and what information you already have in order to solve the problem.)
(total needs (minus) – purchases (equals) = balance to purchase)

Set up a chart of the information you have in order to determine how to solve the problems.

Component	Total Needs (minus) -	Purchases (equals) =	Balance to Purchase
Retail	400 × $59.99 = $23,996.00	250 jeans	**150 jeans**
Cost	$23996.00 × 48% (.48) - $11,518.08	250 × $32.00 = **$8,000.00**	**Balance**: 400 – 250 jeans = **150 pairs** **Balance $** = $11,518.08 - $8,000.00 = **$3,518.08 ÷ 150 =** **Unit Cost = $23.45**
Markup Percent	52%		

1. Calculate total **retail**.
> **Retail $ = Retail per Unit × # of Units**
> Retail $ = $59.99 × 400
> Retail $ = $23,996.00

2. Calculate total **cost**. (Hint: Cost % = Retail % - Markup %)
> **Cost $ = Retail $ × Cost %**
> Cost $ = $23,996.00 × .48 (100% - 52% = 48%)
> Cost $ = $11,518.08

3. Calculate **cost of jeans purchased to date.**
> **Cost $ Purchased = Cost per Unit × # of Units**
> Cost $ Purchased = $32.00 × 250
> Cost $ Purchased = **$8,000.00**

4. Calculate **balance of cost**.
> **Cost $ = Total Cost $ (Need $) - Purchases $ to date**
> Cost $ = $11,518.08 - $8,000.00
> Cost $ = **$3,518.08**

5. Calculate unit cost of jeans to be purchased.
> **Units to be Purchased = Total Needs – Total Purchases to date**
> Units to be Purchased = 400 – 250
> Units to be Purchased = **150**

Unit Cost for Purchases = Cost Balance ÷ # to be Purchased
Unit Cost for Purchases = $3,518.08 ÷ 150
Unit Cost for Purchases = **$23.45 (rounded)**

Calculating average retail when cost and needed markup percent are established.
Many times buyers will make purchases from several different vendors and will pay different wholesale costs for an identical product classification. For a special sale, these items purchased at different wholesale costs are offered as a special to the consumer at the same retail price. A Junior Dress buyer needed to make a special purchase for a Summer Sale. She bought two dozen cotton sundresses at a wholesale cost of $15.00 each, two dozen cotton blend sundresses at $18.00 each, and a select group of one dozen cotton sundresses at $22.00 each. What **unit retail price** does this buyer need to achieve a 46% markup?

*What is the **unit retail price** per cotton or cotton blend sundress?* (Hint: Always determine what information is needed and what information you already have in order to solve the problem.)
(total needs (minus) – purchases (equals) = balance to purchase)

Set up a chart of the information you have in order to determine how to solve the problems.

Component	Total Needs (minus) -	Purchases (equals) =	Balance to Purchase
Retail		$1,056.00 ÷ .54 = **$1,955.56** $1955.56 ÷ 60 = **$32.59**	
Cost		$15.00 × 24 = $360.00 $18.00 × 24 = $432.00 $22.00 × 12 = $264.00 **60** **Total Cost = $1,056.00**	
Markup Percent	46%		

1. Calculate **total cost $**.
　　　Total Cost $ = Cost $ Per Unit × Number (#) of Units
　　　Total Cost $ = $15.00 × 24 = $360.00
　　　　　　　 = $18.00 × 24 = $432.00
　　　　　　　 = $22.00 × 12 = $264.00
　　　Total Cost $ = **$1,056.00**

2. Calculate **total retail $** needed for the 46% markup.
　　　Total Retail $ = Cost ÷ Cost %
　　　Total Retail $ = $1,056.00 ÷ (100% - 46%).54
　　　Total Retail $ = **$1,955.56**

3. Calculate **unit retail price** per sundress.
　　　Unit Retail Price = Total Retail $ ÷ # of Units

Unit Retail Price = $1955.56 ÷ 60
Unit Retail Price = **$32.59**

From the examples above, it is evident that understanding how to apply the appropriate formula or formulas in a day-to-day business scenario is one of the most important responsibilities of the retail merchandiser and buyer. Information without the formulas is only statistical data, and formulas without the data or inappropriate formulas applied to a critical retail problem hinder the profitable operations of a retail establishment.

In the next part, another type of average markup, **cumulative markup**, will be illustrated. Cumulative markup requires the retailer to use a combination of mathematical formulas to calculate an average markup over a specified period of time.